

TYSON (J.)

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PRELIMINARY

TO THE

STUDY OF MEDICINE.

*Being the Introductory Address to the 124th Annual Session of the
Medical Department of the University of Pennsylvania,
delivered October 1st, 1889.*

BY

JAMES TYSON, M.D.,
PROFESSOR OF CLINICAL MEDICINE.

INTRODUCTORY—QUALIFICATIONS FOR THE STUDY OF
MEDICINE—WHAT IS DISEASE—INFLUENCE OF MIND
ON DISEASE—MEDICAL DELUSIONS—WHAT
THE PHYSICIAN MAY DO—CONCLUSION.



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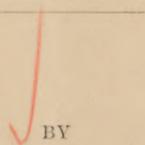
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IT HAS not been unusual, of late, to disparage the introductory address, and there are those who would altogether omit it from the curriculum, as unprofitable, and as occupying time which were better spent in the regular exercises of the course. But when it is remembered that there are collected, on an occasion like this, nearly 500 young men, at least one-fourth of whom are present for the first time in official relation with their instructors in the profession of their choice, and most of whom are strangers in a great city, it is difficult to conceive why an hour may not be profitably employed in the consideration of matters a knowledge of which may be useful and even important to them. I feel, therefore, that it is not the nature of the office so much as the shortcoming of the officer, not the introductory lecture, but the introductory lecturer, who is responsible if the hour prove unprofitable. It will be my fault, therefore, if to-day this should be the case. In turn, I can but promise the effort which the choice of my colleagues and my wish to serve you demand of me, and it has seemed to me that I could perhaps best do so by bringing to your notice some considerations which I believe are appropriate in this preliminary stage of your studies. If, in so doing, I appear at times to address my remarks to those who are here for the first time, I must ask the indulgence of the more advanced students who are not strangers among us.

Without attempting to make a comparison between the profession of medicine and the other so-called learned professions, it

goes without saying that the occupation whose object is the saving and prolongation of life is an important one. The evident corollary from this most evident proposition is that the choice of such profession should not be lightly made, but that thoughtful consideration should be given not only to its importance and responsibility, but also to the motives leading to the selection. Yet everyone knows that mistakes are made, and that in consequence great disappointment frequently follows as great expectation, while a career which might have been useful has been a failure. Now, it is not always given us to pre-elect the life for which we are best fitted, and it sometimes happens that that for which we had supposed ourselves adapted, proves on experience to be the reverse, and that that for which one seemed least fitted turns out to have been his true vocation. More frequently, however, a little more knowledge at the beginning, a little more looking before leaping, would have averted the erroneous choice, and with it the chagrin and disappointment of a mistaken vocation.

The first qualification of a student for the profession of medicine is a fondness for the calling and an interest in it apart from the mere purpose of living by it, and especially of growing rich by it. "In other words, his heart must be in his work," for "the heart giveth grace to every art." It does not harm a physician to be ambitious. Indeed, it is to ambition that we are indebted for some of our greatest and most useful physicians both in the past and present; and although it cannot be regarded as the noblest incentive to good work, I believe it is too much to expect of human nature to insist upon a motive so unalloyed as the pure love of doing good. But if ambition is unaccompanied by an interest in the science and practice of medicine for its own sake, it leads to results scarcely less serious than the stimulus of money-making alone. The student whose object is simply to make a living by practice is beset with difficulties at the very threshold of his career. The hours devoted to study instead of being given *con amore* are bestowed grudgingly and perfunctorily, and the most serious problem with him often is to determine the minimum of work to accomplish his purpose. At the end of a year a "condition" or two, perhaps, await him, which if not

worked off are carried into the second year, hampering his course through it, and when the third year is reached he is probably similarly handicapped and he comes to his final examinations having just disposed of his previous year's work. As a consequence, there is failure, or he passes with the barest margin. Having obtained his diploma, if it fall to his lot to be consulted he approaches his case with indifference, and fails to make such study of the disease as is necessary to its thorough understanding and successful treatment. This is early recognized by patients, the doctor's services are not further asked, he drifts from that which is his only object, and failing in its attainment drops from the ranks, a disappointed man and a failure.

Far different is it with him whose motive is an interest in the science of medicine, whose heart is in his work, although he would also live by it. To him work for eight, ten or a dozen hours a day is not a gruesome task but a pleasurable means to a much-desired end; and when the goal is reached the pleasure deepens as facilities grow, culminating in the opportunities of the hospital ward and autopsy room. Thence into the struggle for bread, the same interest leads to that knowledge of disease and correct diagnosis which underlie all successful treatment. Success is easy, and thus in medicine as in all occupations :

“ He that followeth love's behest,
Far exceedeth all the rest.”

He who adopts the profession of medicine for the sake of growing rich thereby, soon discovers his mistake, or in his extreme efforts to succeed is apt to adopt methods which lose him the respect of his fellows and in the end that of those who employ him. Not that one may not make a good living or even lay up some money if he thoroughly masters the science and art of medicine, attends to his affairs and lives frugally; but he who looks to this alone for his compensation is sure to be disappointed. There must be something more, and he who combines with an interest in the study of disease and its cure a pleasure in a useful life, has this additional incentive, and in acting under it, refines, ennobles and elevates himself to a position nearer the Great

Physician, whose life was the highest expression of that which we, at best, can but feebly imitate.

The chief object of your office as physician is, of course, to battle successfully with disease; and the better to carry out my purpose I desire at this juncture to discuss with you briefly the question: "What is disease?" And doubtless some will be disappointed in the definition, or rather explanation, I shall give you, for it is difficult to define disease in a few words. In the first place, let me say, disease is not an entity, it is not a something which exists of itself inside or outside the living body, independent of it. A dead body cannot be diseased. In order that it may be diseased it must live, but it lives abnormally. Hence Samuels, in his text-book on "General Pathology," well says: "*Kranksein heisst anormal weiter leben*"—to be sick means to live abnormally; that is, with the functions deranged so that what in health goes on unobserved becomes noticeable to the sick man as a discomfort, so long at least as his sensibilities remain. Thus the heart which in health beats its seventy-two strokes per minute without awakening the attention of its owner, when diseased causes great distress. One of the most important mechanisms in the human body is the heat-producing and heat-regulating apparatus. When all goes well with this, our temperature is kept to the normal, and we are comfortable and unconscious that such mechanism exists within us. But let it be deranged, and the discomforts of the chill and fever are its manifestations. Our tissues are filled with sensitive nerves, of the existence of which we know nothing until they are touched or annoyed. But let them be irritated, let their function be deranged, and we become the subjects of exquisite suffering. This is disease, and its treatment consists in restoring the disordered structure and deranged function to their natural state.

This restoration of the normal from the abnormal, or what is known as the "cure" of disease, may be spontaneous or it may be artificial, that is, through nature's own efforts or brought about by the physician's aid. One of the first lessons to be learned by the student, and one of the greatest importance, although also often a disappointing one, is this, that we possess less power to control disease than he had supposed, and, further,

that as an honest man he dare not claim always that although recovery follows the administration of his remedies, such recovery is a cure to be ascribed to their action. In other words, it is important to remember there is a natural or spontaneous cure; that disease, and especially acute disease, often gets well of itself; that there is an inherent tendency in the living organism to throw it off, a tendency which was well named by the earlier physicians the "*Vis medicatrix naturae*," which, translated, means simply the healing power of nature. Undoubtedly the wisest of the earlier physicians were aware of this fact, but whether the great majority of those who practiced the healing art knew it or not—and let us out of charity suppose they did not—those upon whom they practiced were ignorant of this great truth, and to a less extent remain so to the present day. This ignorance I hold largely responsible for the medical delusions under the spell of which so many thousands of the good people of to-day are living. It may be an assertion not altogether approved of by all of my friends, but I nevertheless believe it to be true, that honest efforts, even at the present day, to convince people outside of the profession that the majority of cases of acute illness, under favorable conditions, get well of themselves, and it matters not whether the homœopath prescribes, the eclectic prescribes, or I prescribe, the recovery is the result of nature's own reactive power—will do more to advance rational medicine than the most laborious studies in *materia medica* and *therapeutics*. It does, however, matter in the interest of truth, of reason, and of common sense, that when we prescribe drugs we do so in accordance with the result of experience and judicious experiment, and in doses which such experience and experiment and our habits of life render likely to be efficient, rather than in infinitesimal quantities which are every day exceeded in the water we drink and the meat we eat. Notwithstanding the fact that no one possessing ordinary reasoning power, and knowing the effect of an ounce of alcohol, would expect aught else than a gradually diminishing effect from a gradually diminishing dose—until long before the fractional part of a drop is reached all effect has vanished—we are asked by some to believe that to the treatment of disease this truth does not apply; and although, strange as it may seem to some

of us, many accept such belief, it is reasonable to suppose that the same persons if thoroughly informed of nature's power to heal would be less likely to continue to believe, and to ascribe effects to doses which their every-day experience teaches them to be inert.

Another factor of great importance in the cure of disease, which should be recognized at the outset of your career, is the influence of the mind, and I wish I had the time and ability to treat it as it deserves, for it is a matter of very great importance. By "mind" is not meant imagination, although imagination is a word often used to indicate the same thing. Nor is it "faith," although what is called faith works in the same way. I have said that on the fact that disease tends to get well of itself is based a large part of the delusion with regard to its cure under which so many really intelligent people live. I might add that to the influence of the mind on disease is due the balance of such delusion. We have but to look around us to see, almost daily, especially with our opportunities as physicians, instances of this most remarkable fact. But it will be interesting to you to go back a little, in time, for illustrations, in order that I may show you how certain delusions long since given up were sustained. For it takes a good while, often, to destroy a delusion, and one dare not too soon decry a treatment lest it should prove to have elements of strength which we overlook; though it is true, also, that the growth of our knowledge in all directions, as well as in that of disease, enables us at the present day to refute promptly notions which a century ago would have exerted their spell for a longer time.

One of the earliest of the delusions illustrating the influence of the mind on cure of disease was the "Royal Cure," as it was called, according to which scrofula, or the "King's Evil," was quickly dispelled by the laying on of royal hands. This was practiced by the rulers of England from the time of Edward the Confessor to Queen Anne. William III discontinued it, but Anne resumed it, and among her successful cases was the re-

nowned Samuel Johnson. After the laying on of the hands a gold coin attached to a white ribbon was hung around the neck of the patient. "According to the statement of the advocates and contemporaries of this remedy," says a writer in the *Edinburgh Medical and Surgical Journal*,¹ "none ever failed of receiving benefit unless their little faith and credulity starved their merits. Some are said to have been cured immediately on the very touch, others did not so easily get rid of their swelling, until they were touched a second time. Several cases are related of persons who had been blind for several weeks and months, and obliged even to be led to Whitehall, yet recovered their sight immediately upon being touched so as to walk away without any guide." And listen to this statement by Wiseman, a distinguished surgical writer of the day: "I myself have been a frequent eye-witness of many hundred cures performed by his Majesty's touch alone, without any assistance of chirurgery; and those many of them such as had tried out the endeavors of able chirurgeons before they came hither. It were endless to recite what I, myself, have seen, and what I have received acknowledgments of by letter, not only from the several parts of this nation, but also from Ireland, Scotland, Jersey, Guernsey. It is needless, also, to remember what miracles of this nature were performed by the very Bloud of his late Majesty of blessed memory, after whose decollation by the inhuman barbarity of the regicides, the reliques of that were gathered on chips and in handkerchiefs by the pious devotees, who could not but think so great a suffering in so honorable and pious a cause would be attended by an extraordinary assistance of God and some more than ordinary miracle; nor did their faith deceive them in this their point, being so many hundred that found the benefit of it." The unfortunate Charles II himself, here alluded to by Wiseman, touched nearly 100,000 persons in twelve years, and even the Catholic clergy of the day did not deny that the power had descended to Protestant princes.

Another of the delusions which illustrate strikingly the influence of mind over disease is what was known as "Perkinism," which held for years a wonderful sway, not only in this country, where it originated, but also in Europe. In the year 1796 one Dr. Elisha Perkins, a respectable practitioner in Norwich, Conn.,

conceived the idea that metallic substances might have the effect of removing disease if applied in a certain way, and contrived in the course of certain experiments, his metallic tractors. These consisted of two pieces of metal, one of iron and the other of brass, about three inches long, blunt at one end and pointed at the other. He took out a patent for his invention and at once began to travel with a view to spreading his practice. The tractors were first applied for the cure of such affections as rheumatism, local pain, inflammations and tumors, by drawing them lightly over the affected part for about twenty minutes. Numerous cures resulted, and Perkinism received many supporters of high social standing and influence. In 1798 he crossed the Atlantic, going first to Denmark, making a public exhibition of their application in the Royal Hospital, at Copenhagen, while his son, Benjamin Douglas Perkins, carried the tractors to London and introduced the practice there. Cure followed cure, books were written enumerating them and containing testimonials from clergymen, physicians, lords and ladies, professors, judges and members of Congress : Perkinian institutions were founded, poets sang the tractors' praises, and in about six years Douglas Perkins returned to America with more than £10,000 of English money. Notwithstanding all this, by 1811, fifteen years after the announcement of the elder Perkins, the tractors were almost forgotten, although a million and a half of cures were reported, although at one time workmen could not make them fast enough, and it was once predicted that in a short time there would be very few private families without them. It was soon ascertained by impartial and clear-headed observers that tractors made of lead and wood were equally efficacious, while nails, pieces of bone, slate pencils and tobacco pipes did as well. In illustration of which I quote from the essay of Dr. Holmes on this subject¹ the case of one Ann Hill, who, having had the wooden tractors applied for a pain on the right arm and shoulder, said at the end of five minutes: "Bless me, why who could have thought it that them little things could pull the pain from me. Well, to be sure, the longer one lives the more one sees ; ah, dear !"

¹"Homœopathy and Kindred Delusions."

Similar reputation was acquired by the weapon ointment, or *unguentum amarium*, which was applied not to the wound, but to the weapon, the former being, however, washed and bandaged; also the tar water of Bishop Berkeley, the sympathetic powder and numerous other remedies of less wide reputation.

To come down to the present day we have a striking illustration of the effect of mental influence in the cure of disease by what is known as the "Faith Cure," or Divine healing. According to this doctrine, if I understand it rightly after a careful perusal of a paper by a believer who says that he has been intimately associated with the faith-healing movement ever since it began to attract public attention in this country,¹ it is only necessary for the patient to believe that he or she will be healed through Divine power in order that he may recover; in other words, to have faith. This faith in a patient is regarded as a necessary condition, a perfect consecration of the whole spirit, soul and body being required, at least when the individual is responsible. It is said, however, that rare exceptions have occurred in the case of persons who have not been aware of the prayers offered in their behalf. At the same time the "Faith Healers" believe in the use of means such as prayer, the laying on of the hands, anointing of oil, etc., but these are regarded as of no efficacy in themselves. They must be accompanied by belief.

Another delusion of modern times is "Christian Science" healing. So far as I can ascertain from an examination of the writings of its advocates, it is but a modification of the "faith cure," although its supporters insist that there are decided differences. Such difference, as stated by these supporters, is that the healer by Christian Science does not touch the patient. There is no "laying on of hands," or "speaking the word," the faith healer preferring to "speak in silence to the patient's mind," whatever that may mean. I cannot but conclude, therefore, that while there seem to be more complexity and systematic effort in the method of the Christian Science healer, there is no essential difference in the principle of healing. Belief or faith is the essential condition in each case.

¹ R. Kelso Carter, *The Century*, March, 1887, p. 776.

Now, what does a fair examination of the so-called faith cure and Christian science healing reveal? Only that one of two things is true; either it is impossible for persons with organic or structural disease to have faith, or faith fails of its purpose. For such examination fails to discover a single case of cure which bears the scrutiny of scientific analysis, while there are very few practical physicians of large experience who cannot point to cases of incurable affection which have appealed to this method of cure without any result whatever, and there are not a few who can point to cases which defied the faith cure but responded to surgical measures. Almost every day brings us instances of such failures. They include cases of morbid growths, consumption, Bright's disease, of fever and accidental injury. Some of the reports are interesting and even amusing, while others are extremely sad. Within a few days I read in the columns of a reliable weekly journal the following :

"Bert Williams, aged 17 years, died in a hospital in Findlay, O. He had injured one of his legs while playing ball, and a doctor stitched up the wound. The stitches were removed by believers in 'faith cure,' and the boy was prayed over by them until gangrene set in, with fatal result."

For the benefit of the members of the dental class I extract the following from another journal :

"A Scranton mother whose son had toothache, took him to a faith healer. 'Look me in the eyes,' said the doctor, fixing a fascinating gaze on the weeping youth. 'Now your toothache has entirely disappeared. You haven't a bit of toothache about you.' 'You lie, I have,' yelled the boy, with a fresh howl. The mother then took him to a dentist."

Few who have seen the daily papers have failed to read within the last ten days of the sad case of Martha Olsen, in Brooklyn, a Swedish girl who, confiding in the faith cure, refused all other treatment and perished of typhoid fever, from which, as attested by the autopsy, there is reason to believe she would have recovered under judicious treatment.

That certain results have followed the efforts of the faith healers and Christian science healers I do not have at all the slightest doubt. That these can, however, be accounted for by

natural causes I am equally certain. For in the first place they do not include instances of structural disease except such as are spontaneously curable. The vast majority of the cases so cured are functional, or what is commonly termed "nervous," numbers of which are cured by powerful mental impressions of various kinds, such, for example, as the command of a man or woman possessed of strong personality. Few present have not heard of cases of chronic nervous disease, especially in young women, where recovery has taken place as the result of such influence. Such women have arisen from their beds, where they have lain for months, and walked down-stairs without assistance. Similar results have followed other powerful impressions. Among other cases related by Dr. J. M. Buckley, in a recent article on Faith Healing,¹ is that of a lady who had long been ill, was reduced almost to a skeleton, and could not even raise a glass of water to her lips. This same person on the occasion of her house being afire, sprang from her bed and seized a chest she could not have moved without help when in health, and carried it down-stairs. Many more striking illustrations of the influence of mental impressions over disease could be narrated did time permit, and to those who would pursue this subject further I would commend a very interesting book by Dr. Daniel Hack Tuke, entitled "Illustrations of the Influence of the Mind on the Body in Health and Disease."

Admitting certain effects of the kind named from the use of the tractors, the weapon ointment, of mesmerism, of the faith cure and Christian science healer, how is this brought about? I believe the cases may all be placed in one of three categories. First, are the cures due to nature, to which I have already said must be ascribed the majority of recoveries whatever the treatment, whether by what we are pleased to call rational or orthodox methods, or by some one of those detailed. Second, are those due to the mental impressions already described, and which while often permanent are as often found to be temporary. In this category are to be placed those temporary improvements, the result of hope and encouragement, so often described in the words of the patient to the cheery doctor: "Your very presence makes me feel that I shall get well."

¹ *Century Magazine*, March, 1887.

Among these, too, may be included those fallacious improvements so well illustrated in the history of that sad disease, tubercular consumption, when the patient deludes himself with the belief that he is getting well, while the fell sergeant is hovering near awaiting the favorable moment to seize his prey. In the third category are to be included those cures which occur in the minds of the curer, rather than in the patient, and which are well illustrated by the instance of the cured toothache just related, and which I am sorry to say sometimes also have their illustrations in the pretentious claims of a few of our own number.

Thus have I reviewed some of the delusions which I feel it is important that you should understand at this early stage of your career in order not only that you may be able to explain these actual and apparent cures to your own satisfaction, and through this to resist any temptations to be disloyal to the flag of rational medicine, but that you may be also able to enlighten others who through ignorance may be misled into accepting the dogmas which only require the light of day to explode them. It is needless to say that among these delusions I include homœopathy, curing as it does through nature's own efforts, curing through mental impressions, curing through carefully regulated diet, but not by the direct effect of its remedies, at least when administered according to the principles of the organon of Hahnemann, which must be considered as constituting alone homœopathy. From facts coming constantly to my ears I am under the impression that by many the homœopathy of Hahnemann is being substituted, under the name of homœopathy, by a judicious eclecticism, which is further adding to the reputation of the so-called system, a course of action which, to say the least, cannot be regarded as strictly ingenuous. To those who desire a further refutation of this delusion I would refer to the classical essay of Dr. Oliver Wendell Holmes, on "Homœopathy and Kindred Delusions." Written nearly fifty years ago, it is as fresh and convincing today as when first published.

But is there nothing left for the physician to do through his own efforts? Plenty, I assure you. In the first place there is a

large category of diseases in which although nature makes the effort to heal, she herself is not adequate to the work, or if adequate must accomplish the healing after great delay. The physician comes to her aid and supplies the essential conditions. Sometimes rest alone is the condition required, but the patient does not know this, and the knowledge of the physician supplies it. This is the case, for example, with certain simple fever processes and local inflammations. Others more serious are accompanied by symptoms which either do not cease spontaneously, or, pending the effort of nature to get rid of them, life ebbs away. Such are the diarrhoea of typhoid fever and the high temperature of the same disease. These the physician can directly and successfully combat, and thus save life, while the patient is undoubtedly indebted to him for this life. Again there is the great range of surgical affections, many of which, like the simple scratch and clean cut, if left to themselves, promptly recover without further aid. Then there are those like the simple abscess, which in time will evacuate itself and get well, but the course of which will be greatly accelerated by the surgeon's knife. Others of a more serious character are incapable of spontaneous recovery under any circumstances. Again, the fractured bone left to itself may unite, but with a resulting deformity which makes it useless, while with the surgeon's aid, a well-formed and useful limb results. But the crushed leg of the railway accident and the bullet-shattered bone have no such recuperative power, requiring the skill of the surgeon for their successful treatment, or his knife for their removal, that the life of the patient may be saved. To these we must add the extensive domain of internal surgery, through which, by the aid of aseptic and antiseptic measures, the surgeon's progress has been one grand triumphal march, alongside of which the physician's most successful efforts are a subdued pageant. But in addition to the good offices I have already assigned to him there are a few diseases which may be directly and successfully assaulted by his remedies, which under these circumstances are called "specifics." Such are the malarial affections, intermittent and remittent fevers, which yield promptly to quinine properly administered. Such are also the secondary and tertiary manifestations of syphilis, which yield to iodide of potassium and mercurials.

Nor does it follow that the physician may not avail himself of the influence of mind over disease, of which I have said so much as the foundation of delusions in treatment; in fact, it is almost impossible to eliminate it from the treatment of many diseases. I have already alluded to the influence of the physician's own presence and manner, and in many other ways which I have not time to discuss, this influence makes itself felt. But it is making it the basis of a separate system of cure-all treatment and palming it off to some other cause or agency that I regard as deceptive and unjustifiable. Be not afraid, therefore, that there will not be much for you to do in the direct line of your office as healers. In addition to this an enormous field just now being opened up is also before you in the shape of what is known as preventive medicine, or hygiene, for the study of which, through the bounty of one of the school's benefactors, Mr. Henry C. Lea, special provision is now being made which will make our facilities second to none in this country.

The facilities of to-day for the study of all departments of medicine are vastly greater than they were when your instructors were students, and looking back over the twenty-five years that have elapsed since I was a student, and reviewing the intermediate period during which I have been a graduate of the Medical School of this University, comparing my past with your future, I feel that you are to be congratulated on being students of medicine to-day. I am sure there is no profession the approach to which is more attractive by reason of the interest which attaches to the knowledge on which it is based; and although this knowledge is not to be acquired without effort, yet with your hearts in your work, as I have insisted they must be, such effort needs not to be greater than is wholesome and developing, and if, as should always be the case, your work is tempered with wholesome recreation, you will find your path to be one of rare pleasantness and satisfaction.

